DISC

PLAYING TIME: 74 MINUTES, 33 SECONDS MAXIMUM COUNTER-CLOCKWISE WHEN VIEWED

FROM READOUT SURFACE

ROTATIONAL SPEED: 1.2-1.4 m/sec.

TRACK PITCH: 1.6 µm
DIAMETER: 120 mm
THICKNESS: 1.2 mm
CENTER HOLE DIAMETER: 15 mm

RECORDING AREA: 46 mm-117 mm SIGNAL AREA: 50mm-116 mm

MATERIAL: ANY TRANSPARENT MATERIAL WITH

1.55 REFRACTION INDEX, SUCH AS

POLYCARBONATE

MINIMUM PIT LENGTH: 0.833 μm (1.2 m/sec.) to 0.972 mm (1.4 m/sec.)

MAXIMUM PIT LENGTH: 3.05 μm (1.2 m/sec.) to 3.56 mm (1.4 m/sec.)

PIT DEPTH: APPROX. 0.11 µm
PIT WIDTH: APPROX. 0.5 µm

OPTICAL SYSTEM

STANDARD WAVELENGTH: $\lambda = 780 \text{ nm} (7.800 \text{A})$

FOCAL DEPTH: $\pm 2 \mu m$ (λ /NA $\leq 1.75 \mu m$, NA: NUMERICAL APERATURE)

SIGNAL FORMAT

NUMBER OF CHANNELS: 2 CHANNELS (4-CHANNEL RECORDING

POSSIBLE)

QUANTIZATION: 16-BIT LINEAR QUANTIZATION QUANTIZING TIMING: CONCURRENT FOR ALL CHANNELS

SAMPLING FREQUENCY: 44.1 kHz
CHANNEL BIT RATE: 4.3218 Mb/sec.
DATA BIT RATE: 2.0338 Mb/sec.

DATA-TO-CHANNEL BIT RATIO: 8:17

ERROR CORRECTION CODE: CIRC (WITH 25% REDUNDANCY)

MODULATION SYSTEM: EFM

FIG. 1 PRIOR ART

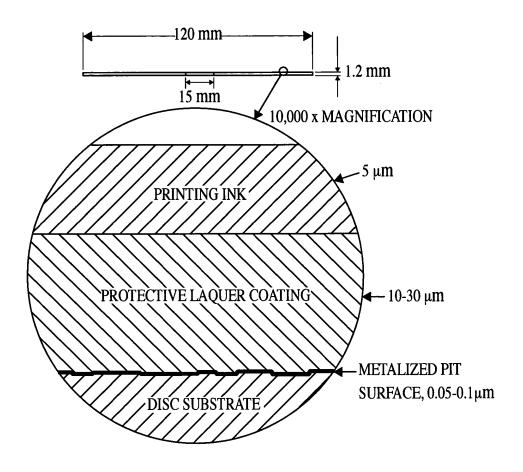


FIG. 2 PRIOR ART

FIG. 3 PRIOR ART

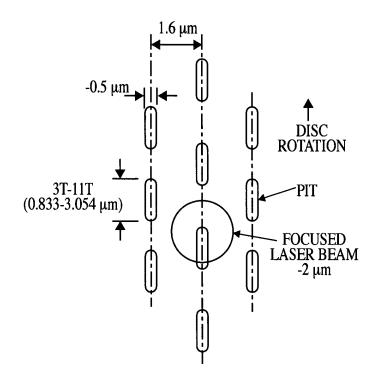


FIG. 4 PRIOR ART

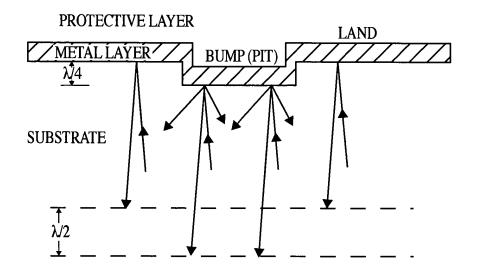


FIG. 5 PRIOR ART

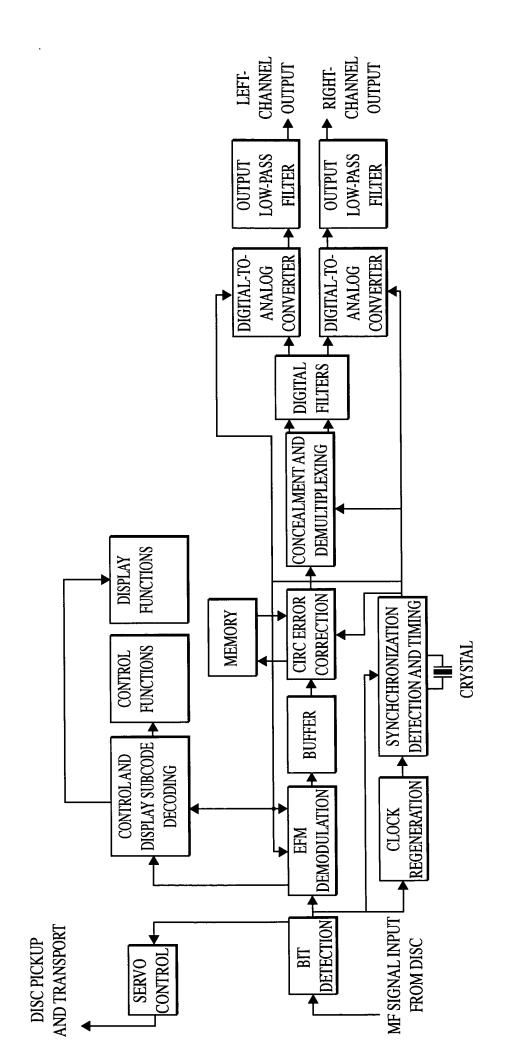


FIG. 6 PRIOR ART

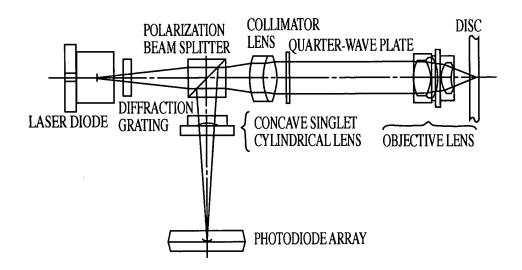


FIG. 7 PRIOR ART

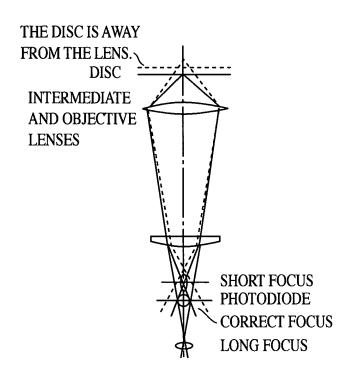


FIG. 8 PRIOR ART

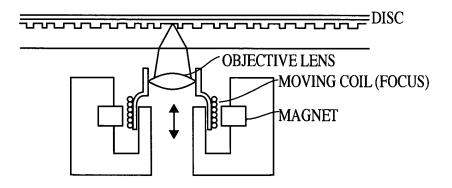


FIG. 9 PRIOR ART

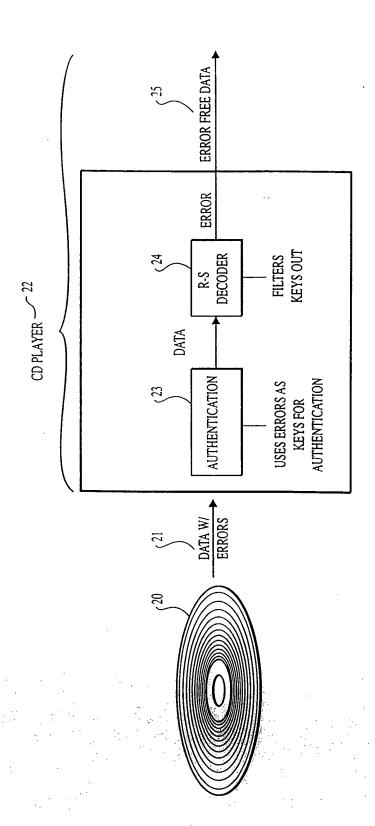
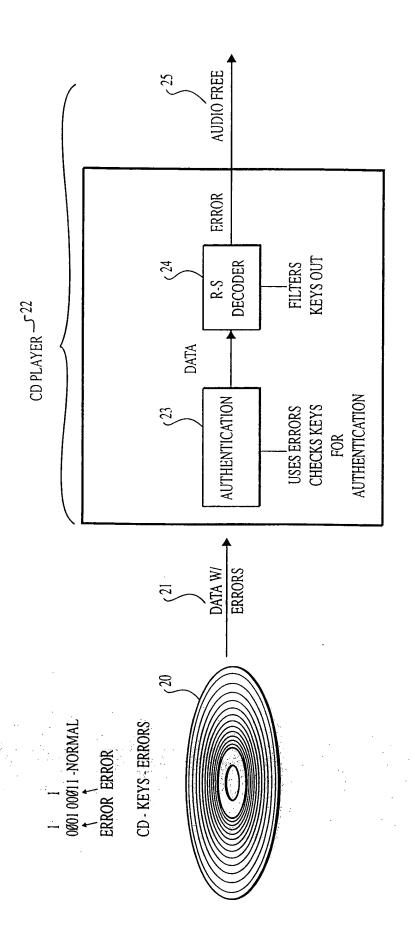


FIG. 10



F[G. 1]

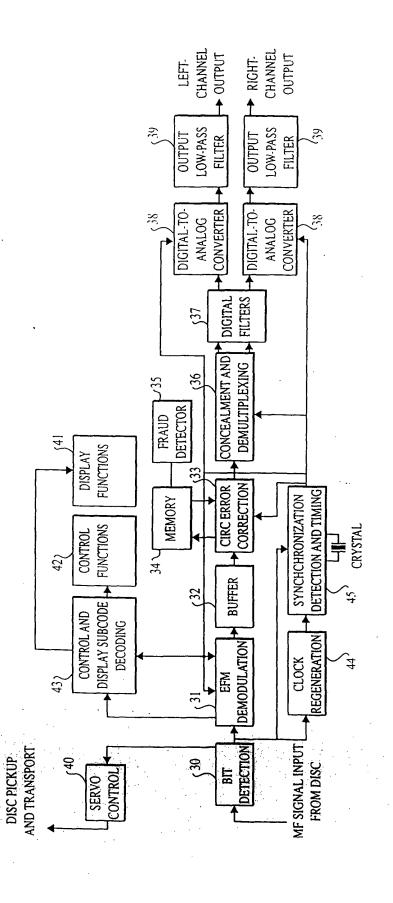
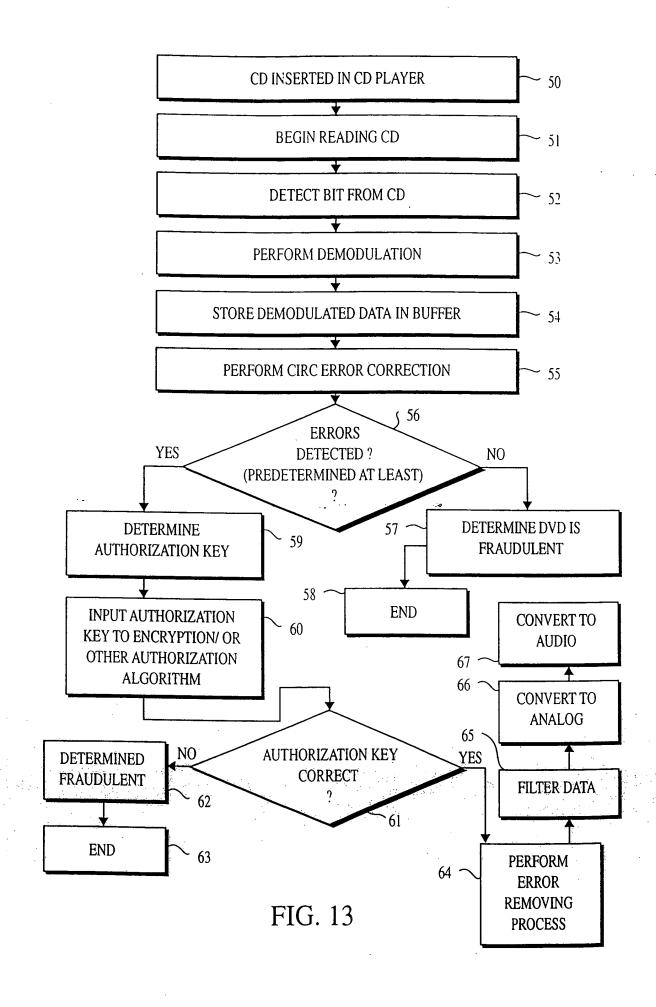


FIG. 13



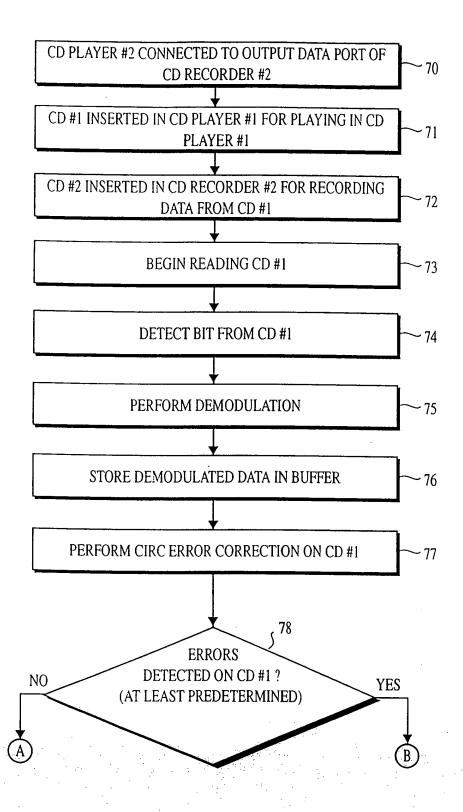


FIG. 14

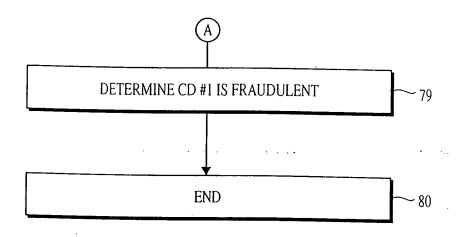


FIG. 15

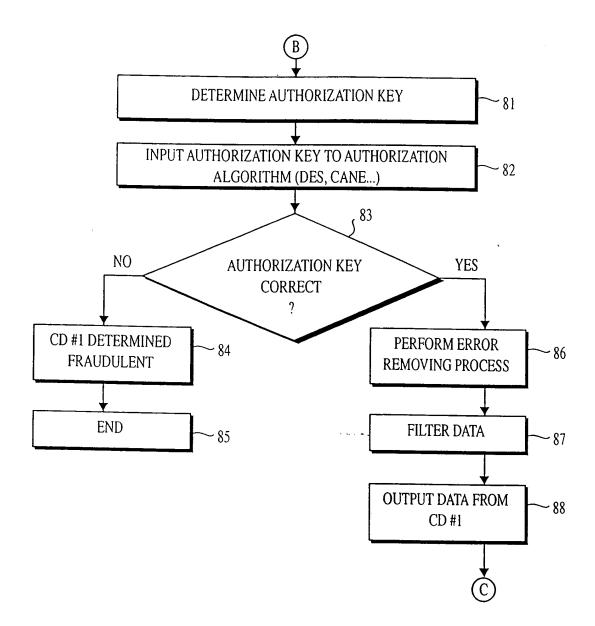


FIG. 16

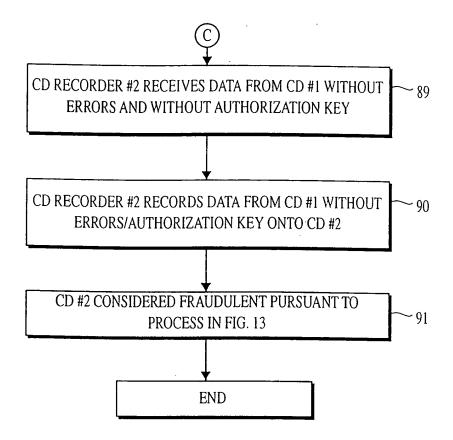
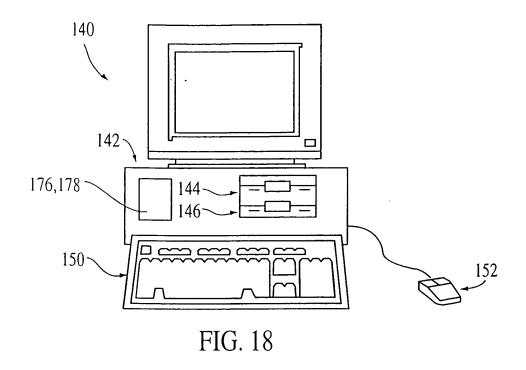
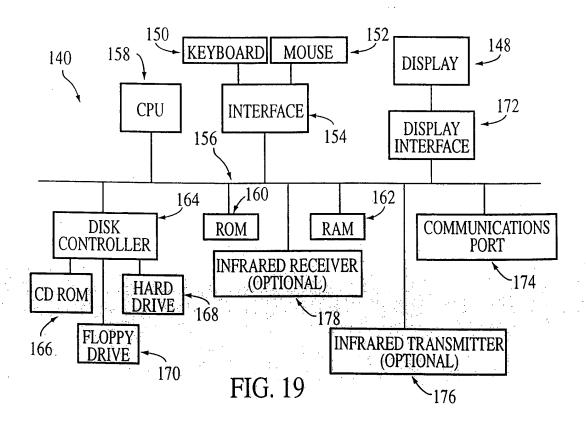
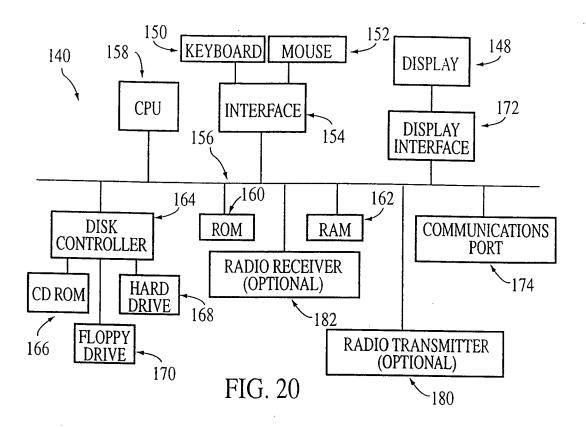


FIG. 17







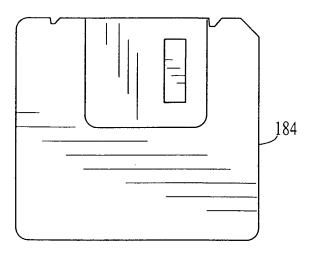


FIG. 21

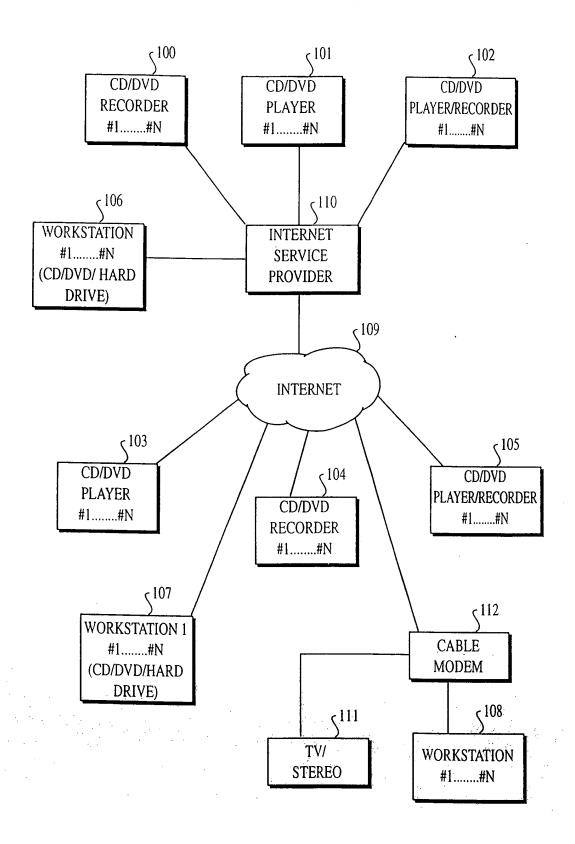


FIG. 22

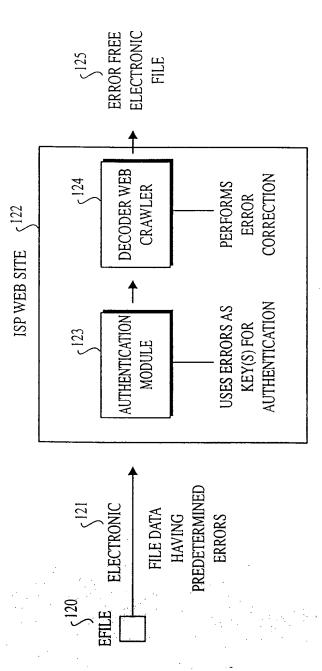


FIG. 23

